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10/821,612

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Kazunari Tonami

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EXAMINER

NEWMAN, MICHAEL A

ART UNIT

PAPER NUMBER

2624

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10/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/821,612

Applicant(s)

TONAMI, KAZUNARI

Examiner

Michael A. Newman

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 0200 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/21/2007; 4/09/2004</u>                                      | 6) <input type="checkbox"/> Other: ____                           |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 4, 6, 7, 8, 9, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishikawa (U.S. Patent No. 6,836,565).

- a. Regarding claims 1 and 9, Nishikawa teaches an image processing apparatus comprising: a first information addition unit to add (**Fig. 11 element 28**), to image data, information related to image processing of the image data according to a first addition method as first information (**Col. 6 lines 27 – 36**); and a second information addition unit (**Fig. 6 element 61**) to add the information to the image data according to a second addition method different from the first information addition method as second information (**Col. 4 lines 17 – 19 and lines 26 – 30**) [**Note that the same reduced image data as generated above is included**], wherein at least one of the first and the second information added is not lost even when an image processing is performed with respect to the image data (**Col. 4 lines 55 – 61**) [**Note that the information can be obtained even if the format is changed**]. [**Note that although the first and second**

**embodiments have been referred to, it is the third embodiment, which combines the two but does not repeat the specifications of each, that is most pertinent. See Col. 7 lines 58 – 67.]**

b. Regarding claim 3, Nishikawa teaches the image processing apparatus according to claim 1, wherein the first information addition unit adds the information to the image data as a tag (**Col. 6 lines 46 – 51**), and the second information addition unit embeds the information in the image data as a specific pattern (**Col. 4 lines 1 – 10**) [**Note that reduced image can be an outline, thumbnail, etc which are pixel patterns specific to the image**].

c. Regarding claims 4 and 10, Nishikawa teaches an image processing apparatus comprising: a first information extractor to extract (**Fig. 11 – “Gamma Correction Value Tag”**) [**Note that although not explicitly shown, clearly, the reduce image data has to be extracted from the image in the memory**], from image data, information related to image processing of the image data according to a first extraction method; a second information extractor (**Fig. 2 – “Reduced Image Data”**) to extract the information from the image data according to a second extraction method different from the first extraction method (**Col. 5 lines 63 – 67**), when the information cannot be extracted by the first information extractor (**Col. 7 lines 58 – 63**); and an image processing unit to perform the image processing based on the information extracted by one of the first information extractor and the second information extractor (**Fig. 2 or 11 element 24**).

d. Regarding claim 6, Nishikawa teaches the image processing apparatus according to claim 4, wherein the first information extractor is operable to extract the information from a tag that has been added to the image data (**Col. 6 lines 46 – 51**), and the second information extractor is operable to extract the information from a specific pattern that has been added to the image data (**Col. 4 lines 1 – 10**) [**Note that reduced image can be an outline, thumbnail, etc which are pixel patterns specific to the image**].

e. Regarding claims 7 and 8, Nishikawa teaches the image processing apparatus according to claim 4, further comprising a third information extractor to extract image characteristics from the image data when the information cannot be extracted by the first information extractor and the second information extractor (**Col. 7 lines 63 – 65**), wherein the image processing unit is operable to perform the image processing based on the image characteristics extracted (**Fig. 2 or 11 element 24**).

f. Regarding claim 11, Nishikawa teaches an image processing system comprising an image input apparatus (**Fig. 1 element 10**) and an image output apparatus (**Fig. 1 element 15**), wherein the image input apparatus includes: a first information addition unit to add (**Fig. 11 element 28**), to image data, information related to image processing of the image data according to a first addition method as first information (**Col. 6 lines 27 – 36**); and a second information addition unit (**Fig. 6 element 61**) to add the information to the image data according to a second addition method different from the first information

addition method as second information (**Col. 4 lines 17 – 19 and lines 26 – 30**) **[Note that the same reduced image data as generated above is included]**, wherein at least one of the first and the second information added is not lost even when an image processing is performed with respect to the image data (**Col. 4 lines 55 – 61**) **[Note that the information can be obtained even if the format is changed]**. **[Note that although the first and second embodiments have been referred to, it is the third embodiment, which combines the two but does not repeat the specifications of each, that is most pertinent. See Col. 7 lines 58 – 67.]**, and the image output apparatus includes: a first information extractor to extract (**Fig. 11 – “Gamma Correction Value Tag”**) **[Note that although not explicitly shown, clearly, the reduce image data has to be extracted from the image in the memory]**, from image data, information related to image processing of the image data according to a first extraction method; a second information extractor (**Fig. 2 – “Reduced Image Data”**) to extract the information from the image data according to a second extraction method different from the first extraction method (**Col. 5 lines 63 – 67**), when the information cannot be extracted by the first information extractor (**Col. 7 lines 58 – 63**); and an image processing unit to perform the image processing based on the information extracted by one of the first information extractor and the second information extractor (**Fig. 2 or 11 element 24**).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa (U.S. Patent No. 6,836,565) in view of Rhoads (U.S. Pg Pub 2003/0048922) and Anglin (U.S. Pg Pub 2003/0032033). Hereinafter referred to as Nishikawa, Rhoads and Anglin respectively.

a. Regarding claims 2 and 5, Nishikawa teaches all the limitations of the independent claims 1 and 4, respectively, as set forth in the 102 rejection of claims 1 and 4 above. Nishikawa also teaches that the first information addition and extraction units add and extract the information to the image data as a tag **(Nishikawa Col. 6 lines 46 – 51)**. However, although Nishikawa also suggests adding the correction parameters to the inside of the image to be corrected **(Nishikawa Col. 8 lines 32 – 34)**, Nishikawa fails to teach that the second

information addition/extraction unit embeds/extracts the information in the image data as/from an electronic watermark. **Pertaining to the same field of endeavor, Rhoads teaches encoding data relating to exposure information in an image using watermarks (Rhoads – abstract lines 1 and 2). More importantly, Rhoads teaches the concept of “header verification”, in which data contained in the header is repeated in a watermarked pattern embedded within the image (Rhoads PP 0322). Anglin, which incorporates Rhoads by reference, teaches that by including redundant representation of information in both header and content watermark, corrupted or lost header data can be retrieved from the watermark (Anglin PP 0140 - 0141). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to embed Nishikawa’s gamma correction value (or the reduced image data used to derive it), currently stored only in the image header, in the image itself as a watermark. By using a robust watermark, the correction information can be successfully retrieved even when abusers or other processing alter the information content of the less robust header (Rhoads PP 00322).**

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



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- a. Levy (U.S. Patent No. 7,266,704) teaches robustness as an advantage of using digital watermarks for digital content management.
- b. Nakayama (U.S. Patent No. 6,768,813) teaches storing correction parameters in a header.
- c. Rhoads (U.S. Patent No. 5,748,783) older reference teaches the concept of header-watermark information redundancy.
- d. Hirano et al. (U.S. Pg Pub No. 2003/0105950) teaches creating duplicate information by duplicating an administrative identifier contained in a header and embedding it as an electronic watermark.

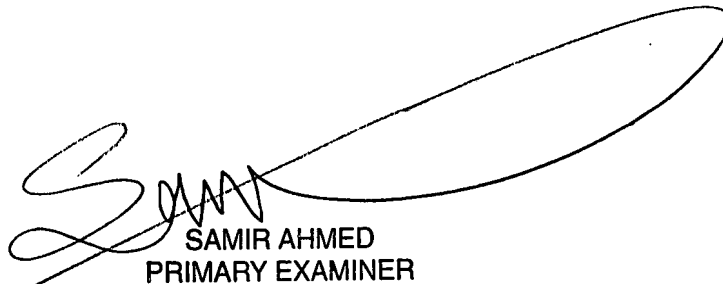
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Newman whose telephone number is (571) 270-3016. The examiner can normally be reached on Mon - Thurs from 9:30am to 6:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir A. Ahmed can be reached on (571)272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.A.N.



SAMIR AHMED  
PRIMARY EXAMINER